



## Table of Contents

I.	Introduction . . . . .	1
II.	Installed Base . . . . .	2
III.	Competitive Equipment Markets . . . . .	5
	A. Converter Boxes . . . . .	5
	B. Remote Controls . . . . .	7
	C. Decoder Interface . . . . .	9
IV.	Signal Scrambling . . . . .	10
V.	Future Equipment Compatibility Issues . . . . .	13
VI.	Conclusion . . . . .	14

## I. Introduction

The Consumer Federation of America (CFA)<sup>1</sup> hereby submits these comments in response to the Commission's request in the above-referenced docket on assuring compatibility between consumer electronic equipment and cable systems. CFA and its members have played an active role in promoting passage of "The Cable Television Consumer Protection and Competition Act of 1992" ("1992 Cable Act") and numerous rulemaking proceedings including this docket.

CFA is concerned that neither the cable industry nor the consumer electronics industry has adequately represented or considered the consumer interest in their compatibility negotiations. Judging from the supplemental comments filed by the Cable-Consumer Electronics Compatibility Advisory Group ("Advisory Group") in this docket on July 21, 1993, the industry representatives may have lost sight of some of the primary purposes of the 1992 Cable Act.

Congress intended to ease the burdens of incompatibility of consumer equipment and cable systems on consumers. Although the consumer electronics industry representatives may be willing to

---

<sup>1</sup> CFA is a federation of 240 pro-consumer organizations with some 50 million individual members. Since 1968, it has sought to represent the consumer interest before federal and state policymaking and regulatory bodies.

allow the cable industry to continue with business as usual in exchange for a more competitive environment in the future, consumers will not stand for it. The 1992 Cable Act calls for immediate relief for consumers in addition to greater competition in the future. Commission leadership is needed to make certain Congress' intentions in this area are fully realized.

## II. Installed Base

The consumer electronics industry estimates there are approximately 200 million color televisions and 100 million VCR's in American homes.<sup>2</sup> Contrary to clear Congressional intent, the proposals put forth by the Advisory Group all but ignore the problems of the installed base.

Under the 1992 Cable Act, cable operators are directed to use technologies that permit consumers to reap the benefits of the features and functions they have already paid for in the consumer electronic equipment they own.<sup>3</sup> The compatibility problems faced by consumers are caused in large part by converter boxes and remote controls available only from the cable

---

<sup>2</sup> See, Comments of Consumer Electronics Group of the Electronic Industries Association (EIA/CEG) at 9, March 22, 1993; Reply Comments of Matsushita Electric Corporation of America at 9, April 21, 1993.

<sup>3</sup> §624A(a)(3).

operator.<sup>4</sup>

The solutions suggested by the Advisory Group call not only for business as usual, but for even more of the offending equipment. The Advisory Group suggests relying on more converter boxes and other equipment attached to the consumer electronic equipment. This additional redundant hardware is meant to approximate the features that are disarmed by the cable system.

Under the Advisory Group' proposal, the possibility is left open for consumers to buy some of the additional equipment from sources other than the cable operator. However, it is the cable operator that will almost certainly emerge as the largest supplier of additional converter boxes, RF connectors or other equipment for every television and VCR in subscriber's homes.<sup>5</sup> If widespread de-scrambling is used, the cable operator will be the only supplier. These so called solutions to today's problems would likely lead to a maze of wires and equipment as well as significant additional expenses for consumers. This is contrary to the language and certainly the spirit of the law.

The problems faced by consumers who make up the installed base are exacerbated because the quality of consumer electronic

---

<sup>4</sup> §624A(a)(1).

<sup>5</sup> Supplemental Comments of the Cable-Consumer Electronics Compatibility Advisory Group at 8. See also discussion of competitive equipment markets at Section III infra.

equipment has improved significantly over the years. Newer televisions and VCR's are rarely serviced and can be expected to last for a great many years. Consumers who have bought equipment over the past few years, as well as those that will buy new equipment over the next few years, are facing perhaps as much as 10-15 years of being a slave to equipment rented by the cable company simply to enjoy the features they have already paid for in their electronic equipment. This is clearly not what Congress intended.

The approach taken by the Advisory Group has many problems. Most importantly, it simply ignores the will of Congress, by failing to provide reasonable relief for consumers. In short, there is no effort to solve the current problems, only unenforceable discussion of dealing with future ones. The industry dismisses all other solutions out of hand as impractical and too costly, but no real support is offered for the Advisory Group proposals. CFA believes that EIA/CEG did a better job of raising and considering legitimate consumer concerns in its previous individual filings<sup>6</sup>, and the Commission and cable industry should look to them as a guide.

---

<sup>6</sup> See generally, Comments of EIA/CEG, March 22, 1992. Failure to deal with the issues previously raised by EIA/CEG may have been in exchange for an agreement, essentially unenforceable, to discuss digital standards in the future.

### III. Competitive Equipment Markets

§624A(c)(2)(C) of the 1992 Cable Act requires the Commission "to promote the commercial availability, from cable operators and retail vendors that are not affiliated with cable systems, of converter boxes and remote control devices compatible with converter boxes." The proposals put forth by the Advisory Group simply ignore this provision of the Act.

#### A. Converter Boxes

The 1992 Cable Act calls for, at minimum, making certain that consumers are able to record one channel while viewing another, record consecutive programs appearing on different channels and enable use of picture display and generation features (i.e. picture-in-picture).<sup>7</sup> In response to this requirement the Advisory Group offers more of the same. There has been no serious effort to avoid the problems of disarming equipment features by moving away from requiring converter boxes. Instead each of the solutions offered requires more and different equipment much of which would be controlled and supplied by the cable operator.

The Advisory Group's suggestions raise serious doubts about its intentions regarding the consumers interest. The beneficiary

---

<sup>7</sup> §624A(c)(1)(A).

of a system which requires numerous converter boxes and other related equipment is the cable operator who is the monopoly (or at least dominant) provider of this equipment, and perhaps in some cases, the equipment manufacturers. This is, in essence, the traditional problem faced by consumers when there is a monopoly provider of necessary equipment. The reason there is a competitive equipment market in the telecommunications industry, is because the Bell companies no longer dictate what equipment consumers can buy or where they can buy it.

The proposals offered by the Advisory Group create a situation which inevitably leads to less innovation and monopoly prices. The essence of the argument, that the cable operator's security concerns outweigh the consumers' interest, are similar to the baseless claims made by the Bell companies before divestiture.<sup>8</sup>

The Advisory Group has failed to move functions out of the monopoly environment controlled by the cable operator and into the competitive consumer electronics market. Legitimate security claims can be dealt with effectively while still permitting a host of other manufacturers and retailers to supply converter boxes. The complete lack of any attempt by the Advisory Group to

---

<sup>8</sup> The telephone companies claimed that they needed to control and bundle equipment and services to protect the integrity and security of the local telephone network. What was really needed, were standards so a competitive market could develop.



move away more quickly from added hardware provided by cable operators or to facilitate a competitive market for converter boxes is distressing.

The Commission must eliminate incentives for cable operators to make system design changes which lead to more widespread use of converter boxes, especially when that equipment is rented or sold primarily or exclusively by cable companies. Failure to eliminate these incentives creates a disincentive to move away from using converter boxes or other in-home equipment by cable systems.

#### B. Remote Controls

The Advisory Group recognizes that there is already a fledgling market for "universal" remote controls designed to work with a variety of cable systems and consumer electronic equipment.<sup>9</sup> However, cable companies have the ability, and unfortunately the inclination, to frustrate this market. The proposals set forth by the Advisory Group do nothing to freeze the infrared codes that are used which allow remote controls to interact with converter boxes. This means that the cable operator can make a "universal" remote obsolete at will.

Aside from being a financial burden and source of

---

<sup>9</sup> Advisory Group at 8.

aggravation for consumers, this provides another significant competitive advantage to cable operators. Presumably if consumers rent or buy their remote control from the cable operator, they would not be affected by code changes because they could rent or trade up for a new model. There is a significant risk taken by consumers who choose to purchase their remote controls elsewhere as well as a competitive advantage for the cable operator. A "universal" remote purchased from an unaffiliated retailer may not work with their cable system in a month or a year due to changed codes, making commercially available remote controls unattractive for consumers.

The 1992 Cable Act requires the Commission to "prohibit a cable operator from taking any action that prevents or in any way disables the converter box supplied by the cable operator from operating with commercially available remote control units."<sup>10</sup> When a cable operator changes infrared codes it does exactly what Congress sought to prevent. To eliminate the competitive advantages and to prevent financial harm to consumers, the Commission should not permit further changes to infrared codes until such changes can be made at a nominal or preferably no cost to consumers.

---

<sup>10</sup> §624A(c)(2)(E).

### C. Decoder Interface

While the proposal encouraging the use of a "Decoder Interface" would represent an improvement with respect to eliminating the use of multiple converter boxes and reducing the amount of clutter in consumers homes, it fails to deal with a more serious issue. Under the Advisory Group's proposal, the decoder interface would still be sold or rented exclusively by the cable operator.

The Commission should strive for a competitive market for all cable equipment. If decoder interfaces are available exclusively or primarily through cable companies or their affiliates, many of the current problems in the area of converter boxes will be repeated. This is a result which Congress surely intended to avoid.

There is language in the supplemental comments which suggests that a functional equivalent to the decoder interface would be an acceptable alternative to the equipment supplied by cable operators.<sup>11</sup> CFA believes this is an encouraging sign if it will lead to migration of at least some (and eventually all) decoding functions out of the monopoly environment and into a

---

<sup>11</sup> Advisory Group at 10. ("Regulation would preclude the use of the term "cable-ready" except on receivers and VCR's which comply with the front-end design specifications and incorporate the Decoder Interface or its functional equivalent as well.")

competitive one. In response, the Commission must make certain that consumers are not forced to pay for these functions from the cable operator when they choose to obtain them from a competitor. If the Commission fails to do so, a competitive market may never develop.

#### IV. Signal Scrambling

The issue from which most of the equipment compatibility problems flow is requiring the use of in-home de-scrambling equipment by cable operators to protect signal security. Premium services such as HBO, Showtime and pay-per-view events are the services which are most frequently scrambled today. The proposal put forth by the Advisory Group would permit continued, and in fact increased use of in-home de-scrambling equipment.

While Congress was concerned with assuring continued security of the cable operator's signal, it is quite clear that use of in-home de-scrambling equipment was not necessarily seen as the only means of protection.<sup>12</sup> Even if the Commission finds that requiring in-home de-scrambling equipment is appropriate in some cases, it surely would not be appropriate in all cases, as the Advisory Group comments would presumably permit.

---

<sup>12</sup> §624A(b)(2). ("(1), [T]he Commission shall determine whether and, if so, under what circumstances to permit cable systems to scramble or encrypt signals...")(emphasis added).

The Advisory Group states that most basic tiers would remain in the clear, but gives operators the option to scramble these signals as well as expanded basic service.<sup>13</sup> CFA's concern, which is shared by other participants in this proceeding<sup>14</sup>, is that signals which have been unscrambled will now become scrambled. The Commission should not permit this to occur.

CFA urges the Commission not to permit cable operators to require in-home de-scrambling equipment for any basic and expanded basic services that were sent in the clear as of the date of passage of the 1992 Cable Act.<sup>15</sup> The Commission should also establish a procedure allowing for public comment, where an operator would have the burden of demonstrating that a significant security threat that did not exist prior to passage of the 1992 Cable Act now exists or that a new service offered as part of a regulated tier should not be offered in the clear.

Although certain provisions of the 1992 Cable Act (such as the anti-buy-through and must-carry requirements) may make use of traps and interdiction less desirable in some cases, these still

---

<sup>13</sup> Advisory Group at 7.

<sup>14</sup> See, Reply Comments of Matsushita at 2, April 21, 1993; Reply Comments of the Staff of the State of New Jersey, Office of Cable Television of the Board of Regulatory Commissioners at 8, April 21, 1993.

<sup>15</sup> While operating in a deregulated environment, cable operators sent many signals in the clear. This may indicate that operators did not perceive a significant security risk with respect to these services.

remain viable alternatives to requiring additional in-home de-scrambling equipment in many situations.<sup>16</sup> CFA believes the primary reason cable operators want the freedom to scramble previously unscrambled services and new program services is because they want to move to "smart boxes" with program guides and ordering capabilities and to increase their monopoly hold over certain home equipment.

Expansion of revenues from pay-per-view programming, converter box and remote control unit sales is not a valid reason for increased signal scrambling.<sup>17</sup> The Commission should take steps to determine whether technologies which permit subscribers to receive signals they subscribe to in the clear are viable alternatives to all forms of in-home de-scrambling equipment. CFA believes Congress intended to limit signal scrambling and in-home de-scrambling equipment to significant security threats.<sup>18</sup>

---

<sup>16</sup> Furthermore, "addressability" as required under the anti-buy-through provisions does not automatically require scrambling of signals. Also, the anti-buy-through provisions do not take full effect for 10 years.

<sup>17</sup> The sponsors of this legislation certainly did not intend for continued monopoly control over these sectors of the equipment market. Then Senator Gore stated, "Senator Leahy's amendment is a solid step in the right direction, to slow this aggressive effort by the cable companies to render obsolete millions of televisions and video recorders in their pursuit of new cash flow." Statement of Sen. Gore, Congressional Record at S 584, January 29, 1992.

<sup>18</sup> See, Statement of Sen. Leahy, Congressional Record, S 583, January 29, 1992. ("My amendment [which later became Section 17 of the 1992 Cable Act] is designed to create more user-friendly connections between cable systems on the one hand  
(continued...)

## V. Future Equipment Compatibility Issues

There is no guarantee that standards for digital transmission will be less controversial or problematic for consumers or easier for the industries to agree upon. CFA applauds the Advisory Group for agreeing to discuss these issues in the future, but this is where the proposal stops. There appear to be good intentions on the part of both the cable industry and the consumer electronics manufacturers, but good intentions are not enough. The Commission should set a deadline as soon as practicably possible for an agreement that can be put out for public comment. The Commission should then make the ultimate decision as to what are appropriate digital standards.

This is too important an area to rely upon empty promises which provide no guarantee that the two industries will ever agree. If decisions and ongoing revisions of standards are not made as quickly as possible, consumers will remain in the same position they are in today. That is, buying equipment that is not compatible with a variety of transmission systems. This type of situation is only good for the standard that becomes the most popular after years of battle in the marketplace. The result is

---

<sup>18</sup>(...continued)  
and televisions and VCR's on the other so that consumers will actually get to use the TV and VCR features they paid for."); See also, Statement of Sen. Leahy, Congressional Record, S 18378, November 26, 1991. ("My bill would...encourage cable systems to use methods of signal denial-such as trapping or interdiction-which do not require a converter box in the first place.")

wasted resources of companies and individuals who "guessed wrong" on which technology would ultimately become the de facto standard.

Another likely result is increased vertical integration by those that control the means of video distribution. The Commission can and should prevent a repeat of the present cable situation by setting digital standards and getting out of the way so any company that wishes to can compete. The competitive telecommunications equipment market may provide an appropriate example for setting digital standards for the cable industry. The goal should be a line between point of entry to the home (where cable companies need to exert control) and inside the home (where consumers should be free to purchase all necessary or desirable interconnecting equipment from whomever they wish).

## VI. Conclusion

CFA appreciates the difficulty faced by two competing industries attempting to settle existing problems in the marketplace and avoid future ones. However, it appears that the consumer interest, which the Advisory Group claimed was paramount, has gotten lost in the shuffle.

What is a reasonable or desired result of two industries may not always be in the best interest of consumers. This is surely



the case with respect to the agreements which validate the status quo with respect to the installed equipment base and the failure to get past professed good intentions for the future.

The Commission is charged with the role of assuring the consumer interest remains paramount and that any agreements serve that interest, and consumers need the Commission's leadership. CFA will be glad to work with the Commission and the Advisory Group to further the goals of Congress embodied in the equipment compatibility provisions of the 1992 Cable Act.

Respectfully submitted,



Bradley Stillman  
Legislative Counsel

Attorney for  
Consumer Federation  
of America

Consumer Federation of America  
1424 16th Street, N.W., Suite 604  
Washington, DC 20036

August 10, 1993